

Storage Device with Optimal Compression Management Mechanism

Abstract

5 The present invention discloses a storage device with optimal
compression management mechanism, mainly comprising a
controller and at least a solid-state storage medium; where
said controller at least has a system interface that may be
connected to an external system end, a microprocessor
10 processing system instructions, and a memory interface
communicating with said solid-state storage medium; said
controller detects and distinguishes the type of raw data to
be stored, chooses the compression algorithm and associated
parameters most suitable for the raw data, and then compresses
15 the raw data into minimized data in the optimal compression
ratio and writes the compressed data into said solid-state
storage medium; in that way, the storage device may boost the
storage capacity of said solid-state storage medium without
increasing physical memory of said solid-state storage
20 medium.